Work Order No: BBMP/EE/DD/WO/520/19-20, Dated: ...

M. A. R. 57 (Rule 116) **No. D**

Measurement Book

346332

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Name of work :- Improvements and maintenance of Culvert at Mallasandra Colony and Surrounding area in ward No. 13 mallasandra Shettyhalli Sub division.						
	Job Code :- 013-20-000012						
	Est Cost :- 10.00 Lakhs.						
	AS NO :- EE/DD/AS/102/2019-20, Dated :- 30.01.2019						
	TS NO :- EE/DD/TS/64/2018-19, Dated :- 30.01.2019						
	Work order NO :- BBMP/EE/DD/WO/520/2019-20, Dated :- 22.01.2020.						

Contractor signature.

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
①	Earthwork excavation by manual means for roads, drains, & similar works in ordinary soil involving 3 t's completed as per Specification.						
	Pre-measurement Qty vide this M.B. Page No.						
	346336					= 90.73 m^3	
	@ P.S 175.00/m^3					Rs = 15878.28	
②	Providing and laying in position plain cement concrete of m15 x 1:8:16 with OPC Cement @ 220 kgs with 20mm and down size grade granite 3 t's completed as per Specification.						
	pre-measurement Qty vide this M.B. Page No.						
	346337					= 11.89 m^3	

M. A. R. 57 (Rule 116) No. D
Measurement Book

Serial No. .....
346333

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		@ Rs. 4900.00/m^3				Rs. = 58256.84	
③	providing and laying plain/prestressed Cement Concrete for side drain using M20 nominal mix Concrete with OPC at 300 kgs, with 20mm and down size granite metal coarse aggregates at 0.67 cum and fine aggregate at 0.43 cum 3 t's completed as per Specification.						
	For RCC Culvert Reel concrete.						
a)	For culvert - 1, 2nd cross (In front of Ambedkar bhavan)	1	X 5.80	X 1.80	X 0.20	= 2.09 cum	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents		Reference to last Measurement
		Number	Length	Breadth	Depth			
1	2	3	4	5	6	7		8
b)	For culvert-2, 3rd cross	1 X	6.50 X	1.80 X	0.20 =	2.34	m^3	
c)	For culvert-3, 3rd cross	1 X	5.10 X	1.50 X	0.20 =	1.53	m^3	
d)	For culvert-4	1 X	5.00 X	1.50 X	0.20 =	1.50	m^3	
e)	For culvert-5, 11th cross from mallasandra village Road	1 X	4.60 X	1.50 X	0.20 =	1.88	m^3	
f)	For culvert-6, Near Rama mandira	1 X	9.00 X	1.20 X	0.20 =	2.16	m^3	
	For culvert Side wall							
g)	For culvert-1, 2nd cross (3rd front of Ambedkar bhavan)	2 X	5.80 X	0.30 X	1.00 =	3.48	m^3	

04/01/2021

M. A. R. 57 (Rule 116) No. D

Measurement Book

346334

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents		Reference to last Measurement
		Number	Length	Breadth	Depth			
1	2	3	4	5	6	7		8
b)	For culvert-2, 3rd cross	2 X	6.50 X	0.30 X	0.98 =	3.82	m^3	
c)	For culvert-3, 3rd cross	2 X	5.10 X	0.30 X	0.90 =	2.75	m^3	
d)	For culvert-4	2 X	5.00 X	0.30 X	0.86 =	2.58	m^3	
e)	For culvert-5, 11th cross from mallasandra village Road	2 X	4.60 X	0.30 X	0.90 =	2.48	m^3	
f)	For culvert-6, Near Rama mandira	2 X	9.00 X	0.30 X	0.92 =	4.97	m^3	

03/01/2021

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	For Culvert/S Deck						
a)	For Culvert-1, 2nd cross (Infront of Ambedkar Bhavan)	1	5.80	1.80	0.30	= 3.13 m³	
b)	For Culvert-2, 3rd cross	1	6.50	1.80	0.30	= 3.51 m³	
c)	For Culvert-3, 3rd cross	1	5.10	1.50	0.30	= 2.30 m³	
d)	For Culvert-4,	1	5.00	1.50	0.30	= 2.25 m³	
e)	For Culvert-5, 11th cross from Mallasandra Village Road	1	4.60	1.50	0.30	= 2.07 m³	
f)	For Culvert-6, Near Rama mandira	1	9.00	1.20	0.30	= 3.24 m³	

Bazaar 17/10/2017

4# 7/01

M. A. R. 57 (Rule 116) No. D
Measurement Book

Serial No. .....

346335

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	For Culvert/S Ramp						
a)	For culvert-1, 2nd cross (Infront of Ambedkar Bhavan)	2	5.80	0.75	0.15	= 1.31 m³	
b)	For culvert-2, 3rd cross	2	6.50	0.80	0.15	= 1.56 m³	
c)	For culvert-3, 3rd cross	2	5.10	0.73	0.15	= 1.12 m³	
d)	For culvert-4	2	5.00	0.72	0.15	= 1.08 m³	
e)	For culvert-5, 11th cross from Mallasandra Village Road	2	4.60	0.60	0.15	= 0.83 m³	
f)	For culvert-6, Near Rama mandira	2	9.00	0.70	0.15	= 2.43 m³	

Bazaar 17/10/2017

4# 17/1

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
			Present Qty =			55.91	m^3
			Limited Qty =			55.73	m^3
		@ Rs. 4950/m^3				Rs =	275863.50
(4)	Providing T.M.T Steel reinforcement for R.C.C. work including Straightting cutting bending, hooking placing fully completed as per Specification.						
	Pre-measurement Qty vide ref in M.B. page No. 346338 to 346340					5.0	Tonne
		@ Rs. 65000/Tonne				Rs =	326300.00
					Total	Rs =	676298.61
		GST charges 12%				Rs =	81155.83
		Grand Total				Rs =	757454.44

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶಿಡ್ಲಘಟ್ಟ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು.

Pre-Measurements

M. A. R. 57 (Rule 116) **No. D**
Measurement Book

346336

Serial No. .....
Name of work ..... From ..... To .....
Name of Contractor of nature of Agency.....
Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
(1)	Earthwork Excavation by manuals means for roads, drains and Similar work in ordinary Soil involving, Excavated Surface leveled & Sides neatly dressed, the disposed Earth to be levelled neatly if is completed as per Specifications.						
a)	For Culvert-1, 2nd cross (infront of Ambedkar bhavan)	1 X	5.80 X	2.18 X	1.10 =	13.91 Cum	
b)	For Culvert-2, 3rd cross	1 X	6.50 X	2.20 X	1.08 =	15.58 Cum	
c)	For Culvert-3, 3rd Cross	1 X	5.10 X	2.23 X	1.10 =	12.51 Cum	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
d)	For culvert - 4	1 X	5.00 X	2.17 X	1.05 =	11.39 Cum	
e)	For culvert - 5, 11th cross from Mallasandra village Road	1 X	4.60 X	2.19 X	1.00 =	10.07 Cum	
f)	For culvert - 6, Near Rama mandira	1 X	9.00 X	2.21 X	1.06 =	21.08 Cum	
	for dissilting in open drain	1 X	8.40 X	0.60 X	0.50 =	2.52 Cum	
		1 X	12.20 X	0.60 X	0.50 =	3.66 Cum	
			present qty =			90.73 Cum	

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಕೆಂಪೇಗೌಡ ಉಪವಿಭಾಗ, ಮಾಗಡಿರಸ್ತೆ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರಮೇಂದ್ರನಗರ, ಬೆಂಗಳೂರು.

M. A. R. 57 (Rule 116) No. D
Measurement Book

346337

Serial No. .....
Name of work ..... From ..... To .....
Name of Contractor of nature of Agency.....
Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
②	Providing and laying in position plain Cement Concrete of mix 1:3:6 with OPC Cement @ 220 kgs with 20mm down size graded granite metal coarse aggregates @ 0.8 cumand fine aggregates @ 0.56 Cum, machine mixed, this completed as per specification.						
a)	For culvert - 1, 2nd cross (Infront of Ambedkar bhavan)	1 X	5.80 X	2.18 X	0.15 =	1.90 Cum	
b)	For culvert - 2, 3rd cross	1 X	6.50 X	2.22 X	0.15 =	2.16 Cum	

MEASUREMENT BOOK

Date	Full description, etc. of work	Dimensions: Number	Length	Breadth	Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
c)	For Culvert -3, 3rd cross	1	5.10	2.23	0.15	1.71 Cum	
d)	For Culvert-4	1	5.00	2.17	0.15	1.63 Cum	
e)	For Culvert -5, 11th Cross From Mallasandra village Road	1	4.60	2.19	0.15	1.51 Cum	
f)	For culvert - 6, Near Rama mandira	1	9.80	2.21	0.15	2.98 Cum	
				present day =		11.89	cum

Executive Engineer (Retd)
Upper Krishna Project, Bagalkot
Upper Krishna Project Division No.2
Asst. Co. Ex. Engineer, Jamkhandi

M. A. R. 57 (Rule 116) No. D
Measurement Book

Serial No. .....
Name of work ..... From ..... To .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

346338

Date	Full description, etc. of work	Dimensions: Number	Length	Breadth	Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
④	providing T.M.T Steel Reinforcement for R.C.C. work including, Straightening, Cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with 16G annealed as per Specification.						
	Double Mat	main Bars 12mm dia @ 100mm C/C					
	For R.C.C Culverts	0.89 kg/mtr					
a)	For Culvert-1, 2nd cross (Infront of Ambedkar bhavan)	2	60	5.40	0.89	= 576.72 kg	
		Distribution Bars 10mm dia @ 100mm C/C					
		0.62 kg/mtr					
	Total Length of culvert = 5.80 Mtr.	2	5.6	5.80	0.62	= 402.75 kg	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
b)	For culvert-2, 3rd cross Total length of culvert = 8.50 mtr	Main Bars 12mm dia @ 100mm C/C 0.89 Kg/mtr					
		2X	68 X	5.40 X 0.89 =		653.62 Kg ✓	
		Distribution Bars 10mm dia @ 100mm C/C 0.62 Kg/mtr					
		2X	55 X	6.50 X 0.62 =		443.30 Kg ✓	
c)	For culvert-3, 3rd cross Total length of culvert = 5.10 mtr	Main Bars 12mm dia @ 100mm C/C ✓ 0.89 Kg/mtr					
		2X	52 X	4.20 X 0.89 =		388.75 Kg ✓	
		Distribution Bars 10mm dia @ 100mm C/C 0.62 Kg/mtr					

M. A. R. 57 (Rule 116) No. D
Measurement Book

Serial No. .....
346339
Name of work ..... From ..... To .....
Name of Contractor of nature of Agency.....
Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		2X	44 X	5.10 X	0.62 =	278.26 Kg	
d)	For culvert-4 Total length of culvert = 5.00 mtr	Main Bars 12mm dia @ 100mm C/C 0.89 Kg/mtr					
		2X	52 X	4.20 X	0.89 =	388.75 Kg	
		Distribution Bars 10mm dia @ 100mm C/C 0.62 Kg/mtr					
		2X	44 X	5.00 X	0.62 =	272.80 Kg	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
e)	For culvert-5, 11th cross from Mallasandra village Road	Main Bars 12mm dia @100mm c/c 0.89 Kg/mtr					
	Total length of culvert = 4.60 mtr	2 X 48 X 4.20 X 0.89 = 358.85 Kg					
		Distribution Bars 10mm dia @ 100mm c/c					
		2 X 44 X 4.60 X 0.62				250.98 Kg	
f)	For culvert-6, Near Rama mandira	Main Bars 12mm dia @100mm c/c 0.89 Kg/mtr					
	Total length of culvert - 9.00 mtr	2 X 92 X 4.20 X 0.89 =				687.79 Kg	
		Distribution Bars 10mm dia @ 100mm c/c					

M. A. R. 57 (Rule 116) No. D

Measurement Book

346340

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

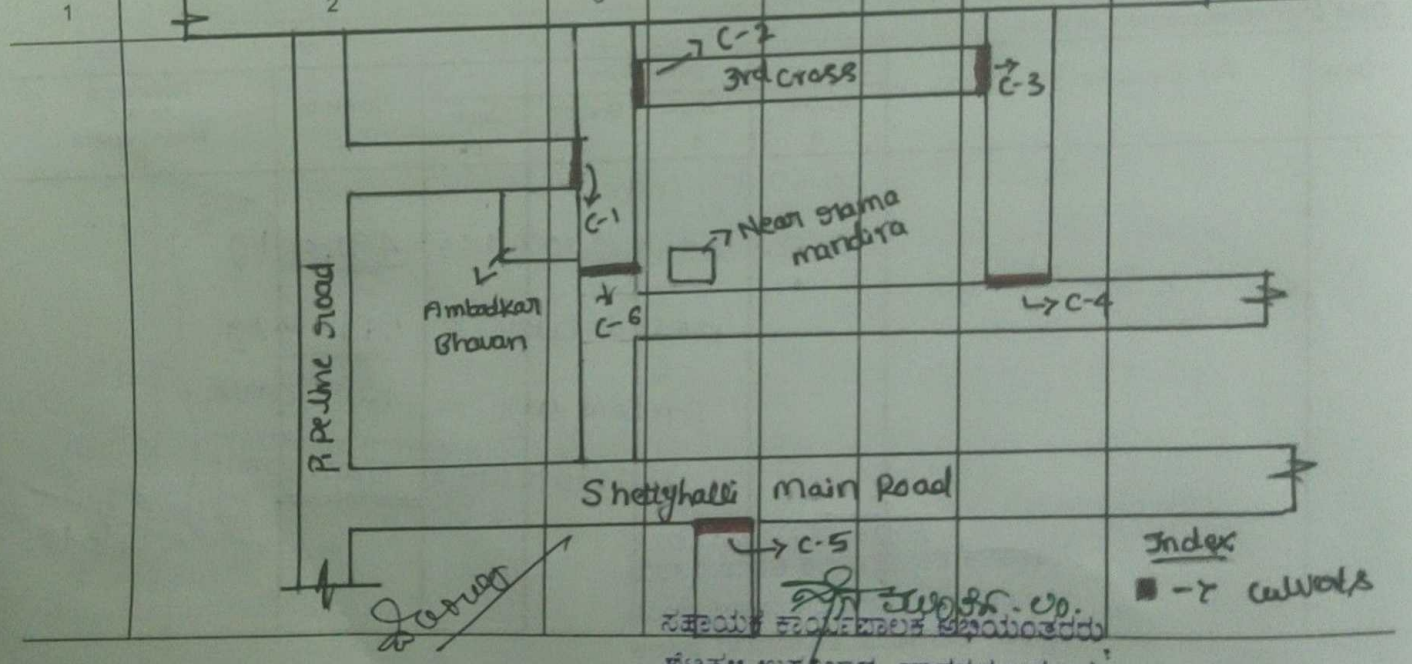
Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		0.62 Kg/Mtr					
		2 X 44 X 9.00 X 0.62 =				491.04 Kg	
		Present Qty =				5193.60 Kg	
		Present Qty =				5.19 tonne	
		Limited Qty =				5.02 tonne	

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8



ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು

ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ